

Listing of Claims

This listing of claims supersedes all previous claims in this application.

IN THE CLAIMS

1-14. (Canceled)

15. (Previously presented) An applicator for use in a system including joining elements for making an anastomosis between hollow structures, said applicator comprising:

a head provided with a plurality of arms connected thereto, each said arm having a proximal end and a distal end, and wherein each said arm is movable from a first position at which the distal ends of the arms are separated by a first distance, to a second position, at which the distal ends of said arms are separated by a second distance, the second distance being greater than the first distance; and

a shank-like element comprising a part located proximal to a distal end of said shank-like element for causing movement of the arms from the first position toward the second position, said shank-like element being associated with said head such that movement of one of said shank-like element and said head relative to the other of said shank-like element and said head, causes said arms to move from said first position toward said second position, and

wherein the distal ends of the arms are adapted to support at least a portion of said hollow structures and hold said joining elements while positioning at least one said hollow structure relative to said joining elements for making an anastomosis between the hollow structures, and said positioning of said hollow structures is accomplished by moving said arms from said first position to said second position.

16. (Previously presented) The applicator according to claim 15, wherein a proximal portion of each said arm is attached to an attachment member.

17. (Previously presented) The applicator according to claim 16, wherein at locations of attachment of said arms to said attachment member, said arms are arranged around a portion of said shank-like element such that relative movement of said head and said shank-like element expand the arms radially outwardly, relative to an axis of said shank-like element.

18. (Previously presented) The applicator according to claim 17, wherein said arms expand from said first position to said second position by deformation.

19. (Canceled)

20. (Currently amended) The applicator according to claim 15, wherein the part proximal to the distal end of the shank-like element comprises a surface portion in engagement with each said arm such that relative movement between the shank-like element and the head results in movement of the arms from the first position toward the second position.

21. (Previously presented) The applicator according to claim 20, wherein the arms move from the first position to the second position by deformation.

22. (Previously presented) The applicator according to claim 15, wherein said applicator further comprises a detainer for controlling movement of said joining elements.

23. (Previously presented) The applicator according to claim 22, wherein the detainer comprises a plurality of surface portions positioned to engage surface portions of said joining elements to thereby limit the movement of said joining elements relative to the detainer.

24. (Previously presented) The applicator according to claim 22, wherein said detainer is axially movable relative to said arms.

25. (Previously presented) The applicator according to claim 24, wherein said detainer is associated with said arms such that axial movement of said detainer results in positioning of said joining elements for making an anastomosis by engagement between a surface of each said joining element and a surface of each said arm.

26. (Previously presented) The applicator according to claim 25, wherein said surface portions of said arms which engage said joining elements are arranged such that said joining elements deform towards a joining position as said detainer is moved axially relative to said arms.

27. (Previously presented) The applicator according to claim 25, wherein said surface portions of said detainer are arranged such that said joining elements can become disengaged from said detainer when said joining elements are in the joining position.

28. (Previously presented) The applicator according to claim 22, further comprising a plurality of surface portions positioned to limit the extent of movement of said arms.

29. (Previously presented) The applicator according to claim 28, wherein said surface portions positioned to limit the extent of movement of said arms form part of said detainer.

30. (Previously presented) The applicator according to claim 28, wherein said surface portions positioned to limit the extent of movement of said arms form part of said head.

31-41. (Canceled)

42. (Previously presented) The applicator according to claim 15, wherein the first distance of separation between said arms is less than a distance of separation between the proximal ends of said arms when said arms are in the first position.

43. (Previously presented) An applicator for use in a system including joining elements for making an anastomosis between hollow structures, said applicator comprising:

a head provided with a plurality of arms connected thereto, each said arm having a proximal end and a distal end, and wherein each said arm is movable from a first position at which the distal ends of the arms are separated by a first distance, to a second position, at which the distal ends of said arms are separated by a second distance, the second distance being greater than the first distance; and

a shank-like element associated with said head such that movement of one of said shank-like element and said head relative to the other of said shank-like element and said head, causes said arms to move from said first position toward said second position;

a detainer axially movable relative to said arms for controlling movement of said joining elements; and

wherein the distal ends of the arms are adapted to support at least a portion of said hollow structures and hold said joining elements while positioning at least one said hollow structure relative to said joining elements for making an anastomosis between the hollow structures, and said positioning of said hollow structures is accomplished by moving said arms from said first position to said second position.

44. (Previously presented) The applicator according to claim 43, wherein said detainer is associated with said arms such that axial movement of said detainer results in positioning of said joining elements for making an anastomosis by engagement between a surface of each said joining element and a surface of each said arm.

45. (Previously presented) The applicator according to claim 44, wherein said surface portions of said arms which engage said joining elements are arranged such that said joining elements deform towards a joining position as said detainer is moved axially relative to said arms.

46. (Previously presented) The applicator according to claim 44, wherein said surface portions of said detainer are arranged such that said joining elements can become disengaged from said detainer when said joining elements are in the joining position.

47. (Previously presented) The applicator according to claim 43, wherein the detainer comprises a plurality of surface portions positioned to engage surface portions of said joining elements to thereby limit the movement of said joining elements relative to the detainer.

48. (Previously presented) The applicator according to claim 43, wherein a proximal portion of each said arm is attached to an attachment member.

49. (Previously presented) The applicator according to claim 48, wherein at locations of attachment of said arms to said attachment member, said arms are arranged around a portion of said shank-like element such that relative movement of said head and said shank-like element expand the arms radially outwardly, relative to an axis of said shank-like element.

50. (Previously presented) The applicator according to claim 49, wherein said arms expand from said first position to said second position by deformation.

51. (Previously presented) The applicator according to claim 43, wherein the part proximal to the distal end of the shank-like element comprises a surface portion in engagement with each said arm such that relative movement between the shank-like element and the head results in movement of the arms from the first position toward the second position.

52. (Previously presented) The applicator according to claim 51, wherein the arms move from the first position to the second position by deformation.

53. (Previously presented) The applicator according to claim 43, further comprising a plurality of surface portions positioned to limit the extent of movement of said arms.

54. (Previously presented) The applicator according to claim 53, wherein said surface portions positioned to limit the extent of movement of said arms form part of said detainer.

55. (Previously presented) The applicator according to claim 53, wherein said surface portions positioned to limit the extent of movement of said arms form part of said head.

56. (Previously presented) An applicator for use in a system including joining elements for making an anastomosis between hollow structures, said applicator comprising:

a head provided with a plurality of arms connected thereto, each said arm having a proximal end and a distal end, and wherein each said arm is movable from a first position at which the distal ends of the arms are separated by a first distance, to a second position, at which the distal ends of said arms are separated by a second distance, the second distance being greater than the first distance; and

a shank-like element associated with said head such that movement of one of said shank-like element and said head relative to the other of said shank-like element and said head, causes said arms to move from said first position toward said second position;

a detainer for controlling movement of said joining elements and including a plurality of surface portions positioned to limit the extent of movement of said arms; and

wherein the distal ends of the arms are adapted to support at least a portion of said hollow structures and hold said joining elements while positioning at least one said hollow structure relative to said joining elements for making an anastomosis between the hollow structures, and said positioning of said hollow structures is accomplished by moving said arms from said first position to said second position.